*Abstract The structure and dynamics of contact networks strongly influence the spread of infectious diseases. We inve
Introduction Epidemic processes unfold over dynamic networks of contacts between individuals. Traditional models oft
Methodology Epidemic and Network Model We consider a population of $N = 1000$ individuals, each represented as a n
The disease dynamics follow the SIR compartmental model: individuals are either Susceptible (S), Infected (I), or Reco
Simulation of the static network utilizes the fastGEMF/Markov approach, while spreading on the temporal network is
Results Simulation outcomes reveal striking differences between the two scenarios. On the aggregated static network, t

Metric	Static Netw
Peak Infected	325
Peak Time	16
Final Epidemic Size	952
Epidemic End Time	69

Table summarizes epidemic metrics for both cases. [h!] Epidemic Metrics Comparison
Figures and further illustrate these outcomes. [http] [width=0.7]comparison-infected.png Infected count over time fo
[http] [width=0.7]comparison-SIR.png S, I, R compartment counts for static vs. temporal network.
Discussion These results underline the critical impact of temporal ordering and network dynamics on epidemic outcom
Conclusion Our investigation demonstrates that the temporal structure of contact networks, as embodied in the activit
*References
10

N. Perra, B. Gonçalves, R. Pastor-Satorras, and A. Vespignani, "Activity driven modeling of time varying networks," Scient
A. Moinet, R. Pastor-Satorras, and A. Barrat, "Effect of risk perception on epidemic spreading in temporal networks," Phys
F. Parino, B. Gonçalves, L. Savini, N. Perra, "Modelling and predicting the effect of social distancing and travel restrictions
M. Perc, "Mathematics of epidemics on networks: from exact to approximate models," Journal of The Royal Society Interfa